

Stainless-Steel Plate Heat Exchanger



Polyblocs work on the principle of crossed streams of air and are available for volumes up to 200'000 [m³/h]. The two mediums are separated from each other by surfaces kept at a distance by way of wave plates. The wave structure of these distance plates as well as the crosswise arrangement of directions of air intake and outlet give the following advantages:

- Distribution of the air volume ensuring high alpha values, absence of internal formation of eddies (laminar streaming) ensuring:
 - minimal pressure loss
 - minimal dirt build up
- The wave-plate construction presents a considerable thermodynamically important, increase in surface area.
- The special construction principle (wave plates, cross-wise laid) brings about a considerably more stable structure compared to conventional construction.
- Small susceptibility to deformation of the exchanger surfaces with differences in pressure (max. 10,000 [pa] between in-take and outlet volumes (many points of support of the wave plates). Thereby tube exchangers can often be substituted by plate exchangers.
- The heat exchanger structure has elastic and vibration-absorbing qualities which is of great value for transport and functional application.
- Distances between plates adjustable for various air volumes
- High operating temperature stability (up to 600°C).
- Different quality-levels are available e.g.
 - low leakage rate (max. 2%)
 - gastight with test certificate
- Lightweight due to compact construction

The simple standardized construction of poly-blocs is the reason for their low price and adapt-ability to meet the needs of the client. Large-sized exchanger blocks are made up by joining several smaller units (see page 4.2.5). The optimum of the relation price-efficiency is reached by cubic types (see chapter 4). Optimal price/ performance relationship is achieved in cubic one piece types

